SEQUENCE LISTINGS

700

- (1) GENERAL INFORMATION:
 - (i) APPLICANT: NEBOJSA JANJIC, LARRY GOLD, PAUL G. SCHMIDT, CHANDRA VARGEESE, MICHAEL WILLIS
 - (ii) TITLE OF THE INVENTION: VASCULAR ENDOTHELIAL GROWTH FACTOR (VEGF) NUCLEIC ACID LIGAND COMPLEXES
 - (iii) NUMBER OF SEQUENCES: 88
 - (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: Swanson and Bratschun, L.L.C.
 - (B) STREET: 8400 East Prentice Avenue, Suite #200
 - (C) CITY: Denver
 - (D) STATE: Colorado
 - (E) COUNTRY: USA
 - (F) ZIP: 80111
 - (v) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Diskette, 3.5 inch, 1.4 Mb storage
 - (B) COMPUTER: IBM compatible
 - (C) OPERATING SYSTEM: MS-DOS
 - (D) SOFTWARE: WordPerfect 6.1
 - (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: 08/897,351
 - (B) FILING DATE: 21 JULY 1997
 - (C) CLASSIFICATION:
 - (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: 08/870,930
 - (B) FILING DATE: 6 JUNE 1997

(viii) ATTORNEY/AGENT INFORMATION:

- (A) NAME: Barry J. Swanson
- (B) REGISTRATION NUMBER: 33,215
- (C) REFERENCE/DOCKET NUMBER: NEX61CIP
- (ix) TELECOMMUNICATION INFORMATION:
 - (A) TELEPHONE: (303) 793-3333
 - (B) TELEFAX: (303) 793-3433
- (2) INFORMATION FOR SEQ ID NO: 1:
 - (i) SEQUENCE CHARACTERIZATION:
 - (A) LENGTH: 78
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULAR TYPE: RNA
 - (ix) FEATURE:
 - (D) OTHER INFORMATION:

50

- (2) INFORMATION FOR SEQ ID NO: 2:
 - (i) SEQUENCE CHARACTERIZATION:
 - (A) LENGTH: 88
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear

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(ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION:
            (D)
      (xi)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 2:
TAATACGACT CACTATAGGG AGGACGATGC GGNNNNNNNN NNNNNNNNN
                                                             50
NNNNNNNN NNNNNNNNN NNCAGACGAC TCGCCCGA
                                                             88
      INFORMATION FOR SEQ ID NO: 3:
(2)
            SEQUENCE CHARACTERIZATION:
      (i)
                  LENGTH: 16
            (A)
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
            (D)
                  TOPOLOGY: linear '
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION:
      (xi)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 3:
TCGGGCGAGT CGTCTG
                                                             16
(2)
      INFORMATION FOR SEQ ID NO: 4:
            SEQUENCE CHARACTERIZATION:
      (i)
                  LENGTH: 32
            (A)
                  TYPE: nucleic acid
            (B)
                  STRANDEDNESS: single
            (C)
                  TOPOLOGY: linear
            (D)
                  MOLECULAR TYPE: RNA
      (ii)
      (ix)
            FEATURE:
            (D)
                  OTHER INFORMATION:
                  SEQUENCE DESCRIPTION: SEQ ID NO: 4:
                                                             32
TAATACGACT CACTATAGGG AGGACGATGC GG
      INFORMATION FOR SEQ ID NO: 5:
      (i) . SEQUENCE CHARACTERIZATION:
            (A)
                  LENGTH: 28
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
            (D) OTHER INFORMATION: Nucleotides at positions 1, 6-7, 10, 14,
16-18, 20, 22, and 24-26 are 2'-fluoro (2'-F) modified
      (ix) FEATURE:
                  OTHER INFORMATION: Nucleotides at positions 2-3, 8-9, 11-
            (D)
13, 15, 19, 21, 23, and 27 are 2'-OMethyl (2'-OMe) modified
            FEATURE:
            (D)
                  OTHER INFORMATION: T in position 28 is a 3'-3'-linked
deoxythymidine
                  SEQUENCE DESCRIPTION: SEQ ID NO: 5:
      (xi)
CGGAAUCAGU GAAUGCUUAU ACAUCCGT
                                                             28
      INFORMATION FOR SEQ ID NO: 6:
(2)
            SEQUENCE CHARACTERIZATION:
      (i)
                  LENGTH: 28
            (A)
                  TYPE: nucleic acid
            (B)
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY: linear
            (D)
```

(ii)

MOLECULAR TYPE: RNA

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(ix)
            FEATURE:
                 OTHER INFORMATION: Nucleotides at positions 1, 6-7, 10, 14,
            (D)
16-18, 20, 22, and 24-26 are 2'-fluoro (2'-F) modified
            FEATURE:
      (ix)
            (D)
                  OTHER INFORMATION: Nucleotides at positions 2-3, 8-9, 11-
13, 15, 19, 21, 23, and 27 are 2'-OMethyl (2'-OMe) modified
            FEATURE:
            (D)
                  OTHER INFORMATION: T in position 28 is a 3'-3'-linked
deoxythymidine
                  SEQUENCE DESCRIPTION:
                                         SEQ ID NO: 6:
CGGAAUCAGU GAAUGCUUAU ACAUCCGT
                                                             28
      INFORMATION FOR SEQ ID NO: 7:
            SEQUENCE CHARACTERIZATION:
            (A)
                  LENGTH: 28
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
            (D)
                  TOPOLOGY: linear
                  MOLECULAR TYPE: RNA
      (ii)
      (ix)
            FEATURE:
            (D)
                  OTHER INFORMATION: Nucleotides at positions 1, 6-7, 10, 14,
16-18, 20, 22, and 24-26 are 2'-fluoro (2'-F) modified
            FEATURE:
      (ix)
                  OTHER INFORMATION: Nucleotides at positions 2-3, 8-9, 11-
            (D)
13, 15, 19, 21, 23, and 27 are 2'-OMethyl (2'-OMe) modified
            FEATURE:
      (ix)
            (D)
                  OTHER INFORMATION: T in position 28 is a 3'-3'-linked
deoxythymidine
                  SEQUENCE DESCRIPTION: SEQ ID NO: 7:
CGGAAUCAGU GAAUGCUUAU ACAUCCGT
                                                             28
(2)
      INFORMATION FOR SEQ ID NO: 8:
      (i)
            SEQUENCE CHARACTERIZATION:
            (A)
                  LENGTH: 28
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY: linear
            (D)
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                 OTHER INFORMATION: Nucleotides at positions 1, 6-7, 10, 14,
            (D)
16-18, 20, 22, and 24-26 are 2'-fluoro (2'-F) modified
            FEATURE:
                 OTHER INFORMATION: Nucleotides at positions 2-3, 8-9, 11-
            (D)
13, 15, 19, 21, 23, and 27 are 2'-OMethyl (2'-OMe) modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: T in position 28 is a 3'-3'-linked
            (D)
deoxythymidine
                  SEQUENCE DESCRIPTION: SEQ ID NO: 8:
CGGAAUCAGU GAAUGCUUAU ACAUCCGT
                                                             28
(2)
      INFORMATION FOR SEQ ID NO: 9:
            SEQUENCE CHARACTERIZATION:
      (i)
                  LENGTH: 28
            (A)
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
            (D)
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA'
      (ix)
            FEATURE:
```

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OTHER INFORMATION: Nucleotides at positions 1, 6-7, 10, 14,
           (D)
16-18, 20, 22, and 24-26 are 2'-fluoro (2'-F) modified
      (ix) FEATURE:
                 OTHER INFORMATION: Nucleotides at positions 2-3, 8-9, 11-
            (D)
13, 15, 19, 21, 23, and 27 are 2'-OMethyl (2'-OMe) modified
           FEATURE:
                 OTHER INFORMATION: T in position 28 is a 3'-3'-linked
deoxythymidine
                 SEQUENCE DESCRIPTION: SEQ ID NO: 9:
CGGAAUCAGU GAAUGCUUAU ACAUCCGT
                                                           28
(2)
     INFORMATION FOR SEQ ID NO: 10:
           SEQUENCE CHARACTERIZATION:
      (i)
                 LENGTH: 61
            (A)
            (B)
                 TYPE: nucleic acid
            (C)
                 STRANDEDNESS: single
                 TOPOLOGY: linear
            (D)
      (ii)
                 MOLECULAR TYPE: RNA
           FEATURE:
      (ix)
            (D)
                 OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
                 SEQUENCE DESCRIPTION: SEQ ID NO: 10:
GGGAGGACGA UGCGGNNNNN NNNNNNNNN NNNNNNNNN NNNNNCAGAC
                                                           50
GACUCGCCCG A
                                                           61
(2)
     INFORMATION FOR SEQ ID NO: 11: •
           SEQUENCE CHARACTERIZATION:
      (i)
            (A)
                 LENGTH: 71
                 TYPE: nucleic acid
            (B)
            (C)
                 STRANDEDNESS: single
                 TOPOLOGY: linear
            (D)
                 MOLECULAR TYPE: RNA
      (ii)
      (ix)
           FEATURE:
                 OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
                 SEQUENCE DESCRIPTION: SEQ ID NO: 11:
50
NNNNCAGAC GACUCGCCCG A
                                                          71
     INFORMATION FOR SEQ ID NO: 12:
(2)
      (i)
           SEQUENCE CHARACTERIZATION:
            (A)
                 LENGTH: 61
            (B)
                 TYPE: nucleic acid
                 STRANDEDNESS: single
            (C)
                 TOPOLOGY: linear
            (D)
      (ii)
                 MOLECULAR TYPE: RNA
      (ix)
           FEATURE:
                 OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
                 SEQUENCE DESCRIPTION: SEO ID NO: 12:
GGGAGGACGA UGCGGAAGAA UUGGUCAUCG UCGUCUCCGC CUCCCCAGAC
                                                           50
GACUCGCCCG A
                                                           61
(2)
      INFORMATION FOR SEQ ID NO: 13:
           SEQUENCE CHARACTERIZATION:
      (i)
                 LENGTH: 61
            (A)
```

(B)

TYPE: nucleic acid

	(ii)	(D)	STRANDEDNESS: TOPOLOGY: line MOLECULAR TYPE:	single ear RNA						
		FEATUR	RE: OTHER INFORMATI	ON: Al	ים ו	vrimidi	nes a	re 2'	-fluoro	(2'-F
modifi		(2)			- P.	,			114010	\~ ,
GGGAGG GACUCG		UGCGGAA	SEQUENCE DESCRI AUAC GGAAGAAUUG	PTION: GAUACAU	SE(JAUG	O ID NO CUCGUC	: 13: AGAC		50 61	
(2)	INFOF	SEQUEN (A) (B) (C)	FOR SEQ ID NO: NCE CHARACTERIZA LENGTH: 61 TYPE: nucleic STRANDEDNESS:	ATION: acid single						
	(ii) (ix)	FEATUR	TOPOLOGY: line MOLECULAR TYPE: RE:	RNA				0.4		101 =
modifi	.ed	(D)	OTHER INFORMATI	ON: Al	ı p	yrimidi	nes a	re 2'	-fluoro	(2'-F)
GGGAGG GACUCG		UGCGGGF	SEQUENCE DESCRI AUAA CAGAAGAAUU						50 61	
(2)	(i) (ii)	SEQUEN (A) (B) (C) (D)	TOPOLOGY: line MOLECULAR TYPE:	acid single						
	(lx)	FEATUR	Œ: OTHER INFORMATI	ON: Al	.l pv	rimidi	nes a	re 2'	-fluoro	(2'-F)
modifi	.ed					•				
GGGAGG GACUCG		UGCGGAU	SEQUENCE DESCRI JGAU CGCGUAGGAA						50 61	
(2)	INFOF	SEQUEN (A) (B) (C)	FOR SEQ ID NO: ICE CHARACTERIZA LENGTH: 61 TYPE: nucleic STRANDEDNESS: TOPOLOGY: line	ATION: acid single						
	(ii) (ix)	FEATUR	MOLECULAR TYPE: RE:	RNA	ומ 1	zrimidi	nes a	re 21	-fluoro	(2' -F)
modifi	.ed	(2)		,	- P.	,		.10 2	114010	(2 1
			SEQUENCE DESCRI ACUU UAGAAGAAUU						50 61	
(2)	INFOF		FOR SEQ ID NO: NCE CHARACTERIZA LENGTH: 61 TYPE: nucleic STRANDEDNESS:	ATION:						

modifi		FEATUR		TYPE: RI		pyrimio	dines	are .	2'-fluoro	(2'-F)
GGGAGG GACUCG	ACGA (JGCGGUA	SEQUENCE I GGA AGAAUI						50 61	
(2)	(i) (ii) (ix)	SEQUEN (A) (B) (C) (D) FEATUR	TYPE: nuc STRANDEDNI TOPOLOGY: MOLECULAR E:	TERIZATION Cleic acio ESS: sing linear TYPE: RN	d. gle		a.c.		04. 51	(O. T.)
modifi		(D)	OTHER INFO	JRMATION:	ATT	barrure	arnes	are.	2'-fluoro	(2'-F)
GGGAGG GACUCG		JGCGGCG	SEQUENCE I GGA UUUUGO						50 61	
(2)	(i) (ii)	SEQUEN (A) (B) (C) (D) FEATUR		TERIZATION Cleic acio ESS: sing linear TYPE: RN	d gle NA	nurimi	dines	aro (2'-fluoro	(21 - F)
modifi	ed	(D)	OTHER INFO	ORMATION:	ATT	pyrimic	ines	are .	z-iluoro	(2'-F)
GGGAGG GACUCG	ACGA U	JGCGGCG	SEQUENCE I GYA CUUUGO						50 61	
		SEQUEN (A) (B) (C) (D) FEATUR	FOR SEQ II CE CHARACT LENGTH: 6 TYPE: nuc STRANDEDNI TOPOLOGY: MOLECULAR E: OTHER INFO	TERIZATION 51 cleic acio ESS: sino linear TYPE: RN	d ' gle NA	purimi	dines	are '	2'-fluoro	/2/_F)
modifi	ed	(D)	OTHER INFO	JIMATION.	YII	БАТТШТ	arnes	are .	2 -IIUOIO	(2)
GGGAGG GACUCG		JGCGGAA	SEQUENCE I GAA UUGGAU						50 61	
(2)	INFORM	SEQUEN (A) (B) (C)	FOR SEQ II CE CHARACT LENGTH: (TYPE: nuc STRANDEDNI TOPOLOGY:	rERIZATION 61 cleic acio ESS: sino	i E					

		FEATUR	RE:	LAR TYPE				:		2/ 61	/0/ E)
modifie	ed	(D)	OTHER I	INFORMAT	TON:	All	pyrım	laines	are	2'-fluoro	(2, -F.)
		UGCGGA		CE DESCR AGAAUUGG						50 61	
	(i) (ii) (ix)	SEQUENT (A) (B) (C) (D)	NCE CHAI LENGTH: TYPE: STRANDI TOPOLOG MOLECUI	nucleic EDNESS: EY: lin LAR TYPE	acid sing ear : RN	: le A	pyrim	idines	are	2'-fluoro	(2'-F)
	(xi) ACGA	UGCGGUA		CE DESCR JAUUGUAA						50 61	
	(i) (ii)	SEQUEN (A) (B) (C) (D)	NCE CHAI LENGTH: TYPE: STRANDI TOPOLOG MOLECUI	O ID NO: RACTERIZ 61 nucleic DNESS: GY: line LAR TYPE	ATION acid sing ear	le					
modifie				NFORMAT	ION:	All	pyrim	idines	are	2'-fluoro	(2'-F)
		UGCGGA		CE DESCR GAAGAAUU						50 61	
,	(i)	SEQUEN (A) (B) (C) (D) FEATUR	NCE CHAF LENGTH: TYPE: STRANDE TOPOLOG MOLECUI	GY: line LAR TYPE	acid sing ear : RN	le A				04. 61	/0/ T)
modifie	ed	(D)	OTHER 1	NFORMAT	ION:	All	pyrım	ıdınes	are	2'-fluoro	(2'-F)
				CE DESCR GGAAGAAU						50 61	
•	INFOF		NCE CHAI LENGTH: TYPE: STRANDI	nucleic EDNESS:	ATION acid sing ear	le					

			ı		
modified		JRE: OTHER INFORMATION:	All pyrimidines a	re 2'-fluoro	(2'-F)
	_				
GGGAGGA		SEQUENCE DESCRIPTIO GAAGA AUUGAUGUUG UAUU GCCCG A		50 71	
i)	i) SEQUE (A) (B) (C) (D)	N FOR SEQ ID NO: 26: ENCE CHARACTERIZATION LENGTH: 70 TYPE: nucleic acid STRANDEDNESS: sing TOPOLOGY: linear MOLECULAR TYPE: RN	I: I jle		
(1)	ix) FEATU (D)			re 2'-fluoro	(2'-F)
modified	d				
GGGAGGA		SEQUENCE DESCRIPTIC ACAGA AGAAUUGGGC UUCG CCCGA		50 70	
	i) SEQUE	N FOR SEQ ID NO: 27: ENCE CHARACTERIZATION LENGTH: 71 TYPE: nucleic acid STRANDEDNESS: sing TOPOLOGY: linear	· · · · · · · · · · · · · · · · · · ·		
	ii)	MOLECULAR TYPE: RN	A		
į)	ix) FEATU	JRE: OTHER INFORMATION:	All nurimidines a	re 21-fluoro	/2 / - E\
modified		OTHER INFORMATION.	:	re z -rruoro	(2 - 1)
GGGAGGA		SEQUENCE DESCRIPTIO JGAGA GAAACGGAAG AAUU GCCCG A		50 71	
()	i) SEQUE (A) (B) (C) (D)	TOPOLOGY: linear	le		
	ii) ix) FEATU	MOLECULAR TYPE: RN	IA		
	(D)	OTHER INFORMATION:	All pyrimidines a	re 2'-fluoro	(2'-F)
modified	d				
•		SEQUENCE DESCRIPTIC CUUAA GUUUUGGAAG AAUU		50 61	
i) i)	i) SEQUE (A) (B)	N FOR SEQ ID NO: 29: ENCE CHARACTERIZATION LENGTH: 60 TYPE: nucleic acid STRANDEDNESS: sing TOPOLOGY: linear MOLECULAR TYPE: RN JRE:	ıle		

modifi	led	(D)	OTHER	INFORMAT	ION:	All	pyrimio	dines	are	2′	-fluoro	(2'-F)
GGGAGG ACUCGG				NCE DESCR GUGGAAGAA							50 60	
(2)	(i) (ii)	SEQUENCE (A) (B) (C) (D)	NCE CHA LENGTA TYPE: STRANI TOPOLO MOLECU	EQ ID NO: ARACTERIZA H: 60 nucleic DEDNESS: DGY: line JLAR TYPE	ATION acid sing	le						
modifi		FEATUI (D)		INFORMAT	ION:	All	pyrimi	dines	are	2′	-fluoro	(2'-F)
GGGAGG ACUCGO				ICE DESCR AGAAUUGGA							50 60	
(2)	INFOR	SEQUEN (A) (B) (C)	NCE CHA LENGTA TYPE: STRANI	EQ ID NO: ARACTERIZA H: 61 nucleic DEDNESS: DGY: line	ATION acid sing	•1						
	(ii) (ix)	FEATU	MOLECU RE:	JLAR TYPE INFORMAT:	: RN	1	pyrimia	dines	are	21	-fluoro	(2'-F)
modifi	ed	(2)					Plrimi	A1110B	arc	_	114010	(2 1)
GGGAGG GACUCG		UGCGGC <i>I</i>		ICE DESCRI JUUGGAAGA							50 61	
(2)	INFORM	SEQUENT (A) (B) (C) (D) FEATUR	NCE CHA LENGTH TYPE: STRAND TOPOLO MOLECU RE:	nucleic DEDNESS: DGY: line JLAR TYPE	ATION acid sing: ear : RN	le A		din		21	<i>f</i> luono	/2/ E)
modifi	.ed	(D)	OIMER	INFORMAT	LON:	AII	pyrimic	unes	are	Ζ,	-iluoro	(2'-F)
GGGAGG GACUCG				ICE DESCRI AGAAUUGG							50 61	
(2)	(i) (ii)	SEQUED (A) (B)	NCE CHALENGTATYPE: STRAND	nucleic DEDNESS:	ATION acid sing ear	le						
	(ix)	FEATUR										



modified

GGGAGG GACUCG		UGCGGAA	SEQUENCE AGAA UUGAG						0	
(2)	INFOF	SEQUEN (A) (B) (C)	FOR SEQ INCE CHARACTERIST IN TYPE: INCUSTRANDED TOPOLOGY:	CTERIZATI 61 ucleic ac NESS: si	ON: id ngle					
	(ii) (ix)	FEATUR					,	0.	61	/O/ E)
modifi	ied	(D)	OTHER INE	ORMATION	: All	pyrimio	ines are	Z· -	riuoro	(Z'-F)
GGGAGG GACUCG		UGCGGAG	SEQUENCE GCUA ACGGA						0	
(2)	INFOF	SEQUEN (A) (B) (C)	FOR SEQ INCE CHARACTERSTH: TYPE: NUSTRANDEDN TOPOLOGY:	CTERIZATI 61 ucleic ac NESS: si	ON: id ngle					
	(ii) (ix)	FEATUR	MOLECULAR	R TYPE:	RNA	nurimid	inos ara	21	fluoro	/2 / - E\
modifi	Led	(D)	OTHER INF	ORMATION	· ALL	ругтшто	ines are	2 -	TIUOTO	(2 - F)
GGGAGG GACUCG	GACGA	UGCGGY	SEQUENCE GAAC CGAUG						0	
(2)	(i) (ii)	SEQUEN (A) (B) (C) (D)	STRANDEDN TOPOLOGY: MOLECULAR	CTERIZATI 61 ucleic ac NESS: si linear	ON: id ngle					
	(ix)		RE: OTHER INE	CORMATION	: All	pyrimid	ines are	2′-	fluoro	(2'-F)
modifi										
GGGAGG GACUCG			SEQUENCE (CAA CCGAU						0	
(2)	INFOF (i) (ii) (ix)	SEQUEN (A) (B) (C)	TOPOLOGY:	CTERIZATI 61 ucleic ac NESS: si : linear	ON: id ngle					
modifi	ied	(D)	OTHER IN	FORMATION	: All	pyrimid	ines are	2′-	fluoro	(2'-F)

GGGAGG GACUCG		UGCGGUAACC GAUUGAACUU CUUGGACGCU ACCGUCAGAC	50 61	
(2)	INFOR	 (A) LENGTH: 61 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear MOLECULAR TYPE: RNA FEATURE: 		
modifi	.ed	(D) OTHER INFORMATION: All pyrimidines are	2'-fluoro	(2'-F)
GGGAGG GACUCG		UGCGGUAACC GAAUUGAAGU UAUUGGACGC UACCUCAGAC	50 61	
(2)	INFOF	RMATION FOR SEQ ID NO: 39: SEQUENCE CHARACTERIZATION: (A) LENGTH: 71 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear		
	(ii) (ix)	MOLECULAR TYPE: RNA	2'-fluoro	(21-F)
modifi	.ed	, , , , , , , , , , , , , , , , , , , ,		(2 2)
		SEQUENCE DESCRIPTION: SEQ ID NO: 39: UGCGGGAGCA GAACCGAUAG AAGAAUUGGA CGCUCAGCUC GACUCGCCCG A	50 71	
(2)	INFOF (i) (ii) (ix)	RMATION FOR SEQ ID NO: 40: SEQUENCE CHARACTERIZATION: (A) LENGTH: 71 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear MOLECULAR TYPE: RNA FEATURE:		
modifi		(D) OTHER INFORMATION: All pyrimidines are	2'-fluoro	(2'-F)
MOGILI		GEOURNAL DESCRIPTION AND ID NO 40		
		SEQUENCE DESCRIPTION: SEQ ID NO: 40: UGCGGGUACC AGAAUGAGCA ACCGAAUGAA GAACUGGACG GACUCGCCCG A	50 71	
(2)	INFOF (i) (ii) (ix)	 (A) LENGTH: 71 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear MOLECULAR TYPE: RNA 		
modifi		(D) OTHER INFORMATION: All pyrimidines are	2'-fluoro	(2'-F)

GGGAGGA		SEQUENCE DESCRIPTION: SEQ ID NO: 41: UGCGGUGAAC CGAUGGAAUC GCUUGGACGC UCAUCGCACG GACUCGCCCG A	50 71	
((i) (ii)	RMATION FOR SEQ ID NO: 42: SEQUENCE CHARACTERIZATION: (A) LENGTH: 61 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear MOLECULAR TYPE: RNA		
modifie	(ix)	FEATURE: (D) OTHER INFORMATION: All pyrimidines are	2'-fluoro	(2'-F)
		CECHENCE DESCRIPTION, CEO ID NO. 42.		
		UGCGGUCAAC CGGUUGAAUA UUUGGUCGCU GACCUCAGAC	50 61	
(NFOF	FEATURE:	04 61	(04, 7)
modifie	ed	(D) OTHER INFORMATION: All pyrimidines are	2'-fluoro	(2'-F)
		SEQUENCE DESCRIPTION: SEQ ID NO: 43: UGCGGAACUA GUGAAUGCUU AUACGACCGU GUUGUCAGAC A	50 61	
	NFOF	RMATION FOR SEQ ID NO: 44: SEQUENCE CHARACTERIZATION: (A) LENGTH: 60 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear MOLECULAR TYPE: RNA		
	(ix)	FEATURE:	04 61	(O4 E)
modifie	ed	(D) OTHER INFORMATION: All pyrimidines are	2'-iluoro	(2'-F')
		UGCGGAUCAG UGAAUGCUUA UAGACCGCCU CCGUCAGACG	50 60	
((i)	RMATION FOR SEQ ID NO: 45: SEQUENCE CHARACTERIZATION: (A) LENGTH: 61 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear		
	(ii) (ix)	MOLECULAR TYPE: RNA FEATURE:		
modifie		(D) OTHER INFORMATION: All pyrimidines are	2'-fluoro	(2'-F)
	(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 45:		

GGGAGGACGA GACUCGCCCG	UGCGGAGAAU CAGUGAAUGC UUAUAAAUCU CGYGUCAGAC A	50 61	
(2) INFOR (i)	RMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERIZATION: (A) LENGTH: 62 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear		
(ii)	MOLECULAR TYPE: RNA (ix) FEATURE: (D) OTHER INFORMATION: All pyrimidines are	2/_fluoro	/2/_E\
modified	(b) official information. All pyrimidines die	2 114010	(2 1)
(xi) GGGAGGACGA CGACUCGCCC	UGCGGAAUCA GUGAAUGCUU AUAGCUCCCG CGUCCUCAGA	50 62	
(2) INFOR	RMATION FOR SEQ ID NO: 47: SEQUENCE CHARACTERIZATION: (A) LENGTH: 60 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear		
(ii) (ix)	MOLECULAR TYPE: RNA	21-fluoro	/2/ - EN
modified	(b) OTHER INFORMATION: ALL pyrimidines are	2 -11u010	(Z -F)
(xi) GGGAGGACGA ACUCGCCCGA	SEQUENCE DESCRIPTION: SEQ ID NO: 47: UGCGGAACCA GUGAAUGCUU AUAAGACUGC UCGUCAGACG	50 60	
(2) INFOR	RMATION FOR SEQ ID NO: 48: SEQUENCE CHARACTERIZATION: (A) LENGTH: 61 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear		
(ii) (ix)	MOLECULAR TYPE: RNA FEATURE:	04 63	404 m
modified	(D) OTHER INFORMATION: All pyrimidines are	2'-fluoro	(2'-F)
(xi) GGGAGGACGA GACUCGCCCG	SEQUENCE DESCRIPTION: SEQ ID NO: 48: UGCGGAUCAG UGAAUGCUUA UAGACCGUAU UGCGUCAGAC A	50 61	,
(2) INFO	RMATION FOR SEQ ID NO: 49: SEQUENCE CHARACTERIZATION: (A) LENGTH: 61 (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear		
(ii) (ix)			
modified	(D) OTHER INFORMATION: All pyrimidines are	2'-fluoro	(2'-F)
(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 49:		
GGGAGGACGA	UGCGGAGAAU CAGUGAAUGC UUAUAAACCU CGUGUCAGAC	50	



GACUCGCCCG A 61

(2)	INFOR	SEQUEN (A) (B) (C)	NCE CHA LENGTH TYPE: STRAND	Q ID NO: RACTERIZ : 61 nucleic EDNESS: GY: lin	ATION acid singi						
	(ii) (ix)	FEATUR	MOLECU RE:	LAR TYPE	: RNA			-1.1		2/ 51	/0/ E)
modifi	ied	(D)	OIREK	INFORMAT	ION:	ATT	БАттшт	arnes	are	2'-fluoro	(Z'-F)
	(xi)		SEOUEN	CE DESCR	' IPTIOI	V: 5	SEO ID	NO: 50):		
GGGAG(GACUC(GACGA	UGCGGAA		GAAUGCUU						50 61	
(2)	INFOR	SEQUEN (A) (B)	NCE CHA LENGTH TYPE:	nucleic	ATION: acid	:					
	(ii)	(D)		EDNESS: GY: lin LAR TYPE							
	(ix)			INFORMAT	ION:	All	pyrimi	dines	are	2'-fluoro	(2'-F)
modifi	ied										
GGGAG(GACUC(UGCGGAC		CE DESCR AAUGCUUA						50 61	
(2)	(i)	SEQUEN (A) (B) (C) (D)	NCE CHA LENGTH TYPE: STRAND TOPOLO	nucleic EDNESS: GY: lin	acid singl	ļe					
	(ii) (ix)			LAR TYPE	: KNA	4.					
modifi	ied	(D)	OTHER	INFORMAT	ION:	All	pyrimi	dines	are	2'-fluoro	(2'-F)
GGGAG(ACUCG(CE DESCR AAUGCCAA						50 60	
(2)	INFOF	SEQUEN (A) (B) (C)	NCE CHA LENGTH TYPE: STRAND	nucleic EDNESS:	ATION: acid singl						
	(ii) (ix)	FEATUF	MOLECU	GY: lin LAR TYPE	: RNZ						
modifi			OTHER	INFORMAT	ION:	All	pyrimi	dines	are	2'-fluoro	(2'-F)
	(xi)		SECUEN	CE DESCR	ד סידר∩י	vi. (SEO ID	NO. 5	٦.		
GGGAG(GACUC(GACGA	UGCGGA		GAAUGCUU						50 61	



```
(2)
      INFORMATION FOR SEQ ID NO: 54:
            SEQUENCE CHARACTERIZATION:
                  LENGTH:
            (A)
                           61
                  TYPE: nucleic acid
            (B)
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
                  SEQUENCE DESCRIPTION: SEQ ID NO: 54:
GGGAGGACGA UGCGGGACUA GGUGAAUGCC AAUAUUCUUC UCCGUCAGAC
                                                             50
GACUCGCCCG A
                                                             61
(2)
      INFORMATION FOR SEQ ID NO: 55:
            SEQUENCE CHARACTERIZATION:
                  LENGTH:
                           30
            (A)
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
            (D)
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
            (D)
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: N at position 30 is a 3'-3'-linked
            (D)
deoxythymidine
                  SEQUENCE DESCRIPTION: SEQ ID NO: 55:
      (xi)
GACGAUGCGG UAGGAAGAAU UGGAAGCGCN
                                                             30
(2)
      INFORMATION FOR SEQ ID NO: 56:
      (i)
            SEQUENCE CHARACTERIZATION:
            (A)
                  LENGTH: 28
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
                  SEQUENCE DESCRIPTION: SEQ ID NO: 56:
GACGAUGCGG UAGGAAGAAU UGGAAGCG
                                                             28
(2)
      INFORMATION FOR SEQ ID NO: 57:
            SEQUENCE CHARACTERIZATION:
      (i)
                  LENGTH: 28
            (A)
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
            (D)
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
            FEATURE:
      (ix)
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: C in position 28 is 2'-OH C
```

SEQUENCE DESCRIPTION: SEQ ID NO: 57:

84

(xi)

```
(2)
      INFORMATION FOR SEQ ID NO: 58:
            SEQUENCE CHARACTERIZATION:
      (i)
                  LENGTH: 23
            (A)
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
            (D)
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: C in position 23 is 2'-OH C
                  SEQUENCE DESCRIPTION: SEQ ID NO: 58:
GCGGUAGGAA GAAUUGGAAG CGC
                                                             23
      INFORMATION FOR SEQ ID NO: 59:
      (i)
            SEQUENCE CHARACTERIZATION:
                  LENGTH: 22
            (A)
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
            (D)
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
            FEATURE:
      (ix)
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: C in position 22 is 2'-OH C
            (D)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 59:
CGGUAGGAAG AAUUGGAAGC GC
                                                             22
(2)
      INFORMATION FOR SEQ ID NO: 60:
      (i)
            SEQUENCE CHARACTERIZATION:
                  LENGTH: 22
            (A)
                  TYPE: nucleic acid.
            (B)
                  STRANDEDNESS: single
            (C)
            (D)
                  TOPOLOGY: linear
                  MOLECULAR TYPE: RNA
      (ii)
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
            FEATURE:
      (ix)
            (D)
                  OTHER INFORMATION: N at position 22 is a 3'-3'-linked
deoxythymidine
      (xi)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 60:
GGUAGGAAGA AUUGGAAGCG CN
                                                             22
(2)
      INFORMATION FOR SEQ ID NO: 61:
      (i)
            SEQUENCE CHARACTERIZATION:
                  LENGTH: 21
            (A)
                  TYPE: nucleic acid
            (B)
                  STRANDEDNESS: single
            (C)
                  TOPOLOGY: linear
            (D)
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
```



```
(ix)
            FEATURE:
            (D)
                  OTHER INFORMATION: N at position 21 is a 3'-3'-linked
deoxythymidine
      (xi)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 61:
GUAGGAAGAA UUGGAAGCGCN
                                                             21
(2)
      INFORMATION FOR SEQ ID NO: 62:
            SEQUENCE CHARACTERIZATION:
                  LENGTH: 32
            (A)
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
            FEATURE:
                  OTHER INFORMATION: N at position 32 is a 3'-3'-linked
deoxythymidine
                  SEQUENCE DESCRIPTION: SEQ ID NO: 62:
GGCGAACCGA UGGAAUUUUU GGACGCUCGC CN
                                                             32
(2)
      INFORMATION FOR SEQ ID NO: 63:
      (i)
            SEQUENCE CHARACTERIZATION:
                  LENGTH: 29
            (A)
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY: linear '
            (D)
      (ii)
                  MOLECULAR TYPE: RNA
            (ix)
                  FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: C in position 29 is 2'-OH C
            (D)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 63:
GCGAACCGAU GGAAUUUUUG GACGCUCGC
                                                             29
      INFORMATION FOR SEQ ID NO: 64:
(2)
            SEQUENCE CHARACTERIZATION:
      (i)
            (A)
                  LENGTH: 27
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
      (xi)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 64:
CGAACCGAUG GAAUUUUUGG ACGCUCG
                                                             27
      INFORMATION FOR SEQ ID NO: 65:
(2)
            SEQUENCE CHARACTERIZATION:
      (i)
            (A)
                  LENGTH: 26
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
            (D)
                  TOPOLOGY: linear
```

MOLECULAR TYPE: RNA

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(ii)

```
(ix)
            FEATURE:
            (D)
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
            FEATURE:
      (ix)
                  OTHER INFORMATION: N at position 26 is a 3'-3'-linked
            (D)
deoxythymidine
                  SEQUENCE DESCRIPTION: SEQ ID NO: 65:
GAACCGAUGG AAUUUUUGGA CGCUCN
                                                             26
      INFORMATION FOR SEQ ID NO: 66:
            SEQUENCE CHARACTERIZATION:
                  LENGTH: 24
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY: linear
            (D)
      (ii)
                  MOLECULAR TYPE: RNA
                  FEATURE:
            (ix)
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: N at position 24 is a 3'-3'-linked
            (D)
deoxythymidine
      (xi)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 66:
AACCGAUGGA AUUUUUGGAC GCUN
                                                             24
      INFORMATION FOR SEQ ID NO: 67:
(2)
            SEQUENCE CHARACTERIZATION:
      (i)
                  LENGTH: 22
            (A)
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
            (D)
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: 'All pyrimidines are 2'-fluoro (2'-F)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: N at position 22 is a 3'-3'-linked
            (D)
deoxythymidine
                  SEQUENCE DESCRIPTION: SEQ ID NO: 67:
      (xi)
ACCGAUGGAA UUUUUGGACG CN
                                                             22
(2)
      INFORMATION FOR SEQ ID NO: 68:
      (i)
            SEQUENCE CHARACTERIZATION:
            (A)
                  LENGTH: 30
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY: linear
            (D)
                  MOLECULAR TYPE: RNA
      (ii)
                  FEATURE:
            (ix)
            (D)
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
            FEATURE:
      (ix)
                  OTHER INFORMATION: N at position 30 is a 3'-3'-linked
            (D)
```

SEQUENCE DESCRIPTION: SEQ ID NO: 68:

30

deoxythymidine

GCGGAAUCAG UGAAUGCUUA UACAUCCGCN

```
(2)
      INFORMATION FOR SEQ ID NO: 69:
      (i)
            SEQUENCE CHARACTERIZATION:
                  LENGTH: 27
            (A)
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
                  TOPOLOGY: linear
            (D)
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
                  SEQUENCE DESCRIPTION: SEQ ID NO: 69:
CGGAAUCAGU GAAUGCUUAU ACAUCCG
                                                             27
      INFORMATION FOR SEQ ID NO: 70:
            SEQUENCE CHARACTERIZATION:
                  LENGTH: 25
            (A)
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
            (D)
                  TOPOLOGY: linear
                  MOLECULAR TYPE: RNA
      (ii)
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: C in position 25 is 2'-OH C
            (D)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 70:
GGAAUCAGUG AAUGCUUAUA CAUCC
                                                             25
(2)
      INFORMATION FOR SEQ ID NO: 71:
            SEQUENCE CHARACTERIZATION:
      (i)
            (A)
                  LENGTH: 24
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
                  FEATURE:
            (ix)
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: N at position 24 is a 3'-3'-linked
            (D)
deoxythymidine
                  SEQUENCE DESCRIPTION: SEQ ID NO: 71:
      (xi)
GAAUCAGUGA AUGCUUAUAC AUCN
                                                             24
(2)
      INFORMATION FOR SEQ ID NO: 72:
      (i)
            SEQUENCE CHARACTERIZATION:
                  LENGTH: 22
            (A)
                  TYPE: nucleic acid
            (B)
                  STRANDEDNESS: single
            (C)
                  TOPOLOGY: linear
            (D)
                  MOLECULAR TYPE: RNA
      (ii)
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
            FEATURE:
      (ix)
                  OTHER INFORMATION: N at position 22 is a 3'-3'-linked
            (D)
```

deoxythymidine

```
SEQUENCE DESCRIPTION: SEQ ID NO: 72:
AAUCAGUGAA UGCUUAUACA UN
                                                             22
(2)
      INFORMATION FOR SEQ ID NO: 73:
            SEQUENCE CHARACTERIZATION:
                  LENGTH: 20
            (A)
                  TYPE: nucleic acid
            (B)
                  STRANDEDNESS: single
            (C)
            (D)
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: | All pyrimidines are 2'-fluoro (2'-F)
modified
            FEATURE:
      (ix)
                  OTHER INFORMATION: N at position 20 is a 3'-3'-linked
            (D)
deoxythymidine
                  SEQUENCE DESCRIPTION: SEQ ID NO: 73:
AUCAGUGAAU GCUUAUACAN
                                                             20
      INFORMATION FOR SEQ ID NO: 74:
(2)
            SEQUENCE CHARACTERIZATION:
      (i)
            (A)
                  LENGTH: 29
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY: linear
            (D)
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified
            (D)
            FEATURE:
      (ix)
                  OTHER INFORMATION: G in position 10, A in position 12, and
            (D)
G in position 22 are unmodified (i.e., 2'-OH)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 74:
GACGAUGCGG UAGGAAGAAU UGGAAGCGC
                                                             29
      INFORMATION FOR SEQ ID NO: 75:
(2)
            SEQUENCE CHARACTERIZATION:
      (i)
            (A)
                  LENGTH: 29
                  TYPE: nucleic acid
            (B)
                  STRANDEDNESS: single
            (C)
                  TOPOLOGY: linear
            (D)
                  MOLECULAR TYPE: RNA
      (ii)
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
      (ix)
            FEATURE:
            (D)
                  OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: G in position 10 and A in position 12
            (D)
are unmodified (i.e., 2'-OH)
      (xi)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 75:
GACGAUGCGG UAGGAAGAAU UGGAAGCGC
                                                             29
```

INFORMATION FOR SEQ ID NO: 76:

SEQUENCE CHARACTERIZATION:

LENGTH: 29

(2)

(i)

(A)

```
(B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
             (C)
                  TOPOLOGY: linear
            (D)
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
      (ix)
            FEATURE:
            (D)
                  OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified
            FEATURE:
      (ix)
                  OTHER INFORMATION: G in positions 10 and 22 is unmodified
            (D)
(i.e., 2'-OH)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 76:
GACGAUGCGG UAGGAAGAAU UGGAAGCGC
                                                             29
      INFORMATION FOR SEQ ID NO:77:
            SEQUENCE CHARACTERIZATION:
      (i)
                  LENGTH: 29
            (A)
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY: linear
            (D)
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
            FEATURE:
      (ix)
                  OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified
            (D)
            FEATURE:
      (ix)
            (D)
                  OTHER INFORMATION: A in position 12 and G in position 22
are unmodified (i.e., 2'-OH)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 77:
GACGAUGCGG UAGGAAGAAU UGGAAGCGC
                                                             29
(2)
      INFORMATION FOR SEQ ID NO: 78:
            SEQUENCE CHARACTERIZATION:
      (i)
            (A)
                  LENGTH: 31
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
            (D)
                  TOPOLOGY: linear
                  MOLECULAR TYPE: RNA
      (ii)
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified
            FEATURE:
            (D)
                  OTHER INFORMATION: A in position 6 and G in position 21 are
unmodified (i.e., 2'-OH)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 78:
GGCGAACCGA UGGAAUUUUU GGACGCUCGC C
                                                             31
(2)
      INFORMATION FOR SEQ ID NO: 79: '
            SEQUENCE CHARACTERIZATION:
      (i)
            (A)
                  LENGTH: 31
                  TYPE: nucleic acid
            (B)
            (C)
                  STRANDEDNESS: single
            (D)
                  TOPOLOGY: linear
```

(ii)

MOLECULAR TYPE: RNA

```
FEATURE:
      (ix)
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
            FEATURE:
      (ix)
                  OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified
            (D)
      (ix)
            FEATURE:
                  OTHER INFORMATION: A in position 6 is unmodified (i.e., 2'-
OH)
                  SEQUENCE DESCRIPTION:
                                          SEQ ID NO: 79:
GGCGAACCGA UGGAAUUUUU GGACGCUCGC C
                                                              31
      INFORMATION FOR SEQ ID NO: 80:
            SEQUENCE CHARACTERIZATION:
      (i)
                  LENGTH:
                           31
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
            (D)
                  TOPOLOGY: linear
                  MOLECULAR TYPE: RNA
      (ii)
      (ix)
            FEATURE:
            (D)
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
            FEATURE:
      (ix)
                  OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified
            (D)
      (ix)
            FEATURE:
                  OTHER INFORMATION: G in position 21 is unmodified (i.e.,
            (D)
2'-OH)
                  SEQUENCE DESCRIPTION:
                                          SEQ ID NO: 80:
GGCGAACCGA UGGAAUUUUU GGACGCUCGC C
                                                              31
(2)
      INFORMATION FOR SEQ ID NO: 81:
      (i)
            SEQUENCE CHARACTERIZATION:
            (A)
                  LENGTH: 29
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY:
            (D)
                             linear
      (ii)
                  MOLECULAR TYPE: RNA
                  FEATURE:
            (ix)
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified
            (D)
            FEATURE:
                  OTHER INFORMATION: A in positions 5 and 6 is unmodified
            (D)
(i.e., 2'-OH)
      (xi)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 81:
GCGGAAUCAG UGAAUGCUUA UACAUCCGC
                                                              29
(2)
      INFORMATION FOR SEQ ID NO:82:
      (i)
            SEQUENCE CHARACTERIZATION:
            (A)
                  LENGTH: 29
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
            (D)
                  TOPOLOGY:
                             linear
      (ii)
                  MOLECULAR TYPE: RNA
      (ix)
            FEATURE:
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
```

(ix)

FEATURE:

```
OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified
      (ix)
            FEATURE:
            (D)
                  OTHER INFORMATION: 'A in position 5 is unmodified (i.e., 2'-
OH)
                  SEQUENCE DESCRIPTION: SEO ID NO: 82:
GCGGAAUCAG UGAAUGCUUA UACAUCCGC
                                                             29
      INFORMATION FOR SEQ ID NO: 83: 1
      (i)
            SEQUENCE CHARACTERIZATION:
                  LENGTH: 29
            (B)
                  TYPE: nucleic acid
                  STRANDEDNESS: single
            (C)
            (D)
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
            (ix)
                  FEATURE:
                  OTHER INFORMATION: | All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified
            (D)
            FEATURE:
      (ix)
                  OTHER INFORMATION: A in position 6 is unmodified (i.e., 2'-
            (D)
OH)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 83:
      (xi)
                                                             29
GCGGAAUCAG UGAAUGCUUA UACAUCCGC
(2)
      INFORMATION FOR SEQ ID NO: 84:
            SEQUENCE CHARACTERIZATION:
      (i)
            (A)
                  LENGTH: 23
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
            FEATURE:
      (ix)
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified
            (D)
      (ix)
            FEATURE:
                  OTHER INFORMATION: G in position 4 and A in position 6 are
            (D)
unmodified (i.e., 2'-OH)
                  SEQUENCE DESCRIPTION: SEQ ID NO: 84:
      (xi)
GCGGUAGGAA GAAUUGGAAG CGC
                                                             23
(2)
      INFORMATION FOR SEQ ID NO: 85:
      (i)
            SEQUENCE CHARACTERIZATION:
            (A)
                  LENGTH: 29
            (B)
                  TYPE: nucleic acid
            (C)
                  STRANDEDNESS: single
            (D)
                  TOPOLOGY: linear
      (ii)
                  MOLECULAR TYPE: RNA
                  FEATURE:
            (ix)
                  OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F)
            (D)
modified
      (ix)
            FEATURE:
                  OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified
            (D)
      (ix)
            FEATURE:
                  OTHER INFORMATION: | A in position 5 and G in position 20 are
```

unmodified (i.e., 2'-OH) SEQUENCE DESCRIPTION: SEQ ID NO: 85: GCGAACCGAU GGAAUUUUUG GACGCUCGC 29 INFORMATION FOR SEQ ID NO: 86: (2) SEQUENCE CHARACTERIZATION: LENGTH: 27 (A) (B) TYPE: nucleic acid STRANDEDNESS: single (C) TOPOLOGY: linear MOLECULAR TYPE: RNA (ii) (ix) FEATURE: OTHER INFORMATION: All pyrimidines are 2'-fluoro (2'-F) (D) modified (ix) FEATURE: (D) OTHER INFORMATION: Purines are 2'-OMethyl (2'-OMe) modified (ix) FEATURE: OTHER INFORMATION: A in positions 4 and 5 is unmodified (D) (i.e., 2'-OH) SEQUENCE DESCRIPTION: SEQ ID NO: 86: (xi) GGAAUCAGU GAAUGCUUAU ACAUCCG 27 INFORMATION FOR SEQ ID NO: 87: SEQUENCE CHARACTERIZATION: (i) LENGTH: 13 (A) (B) TYPE: nucleic acid STRANDEDNESS: single (C) TOPOLOGY: linear (D) (ii) MOLECULAR TYPE: RNA FEATURE: (ix) OTHER INFORMATION: (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 87: GCCTTAGTCA CTT 13 (2) INFORMATION FOR SEQ ID NO: 88: SEQUENCE CHARACTERIZATION: (i) LENGTH: 14 (A) (B) TYPE: nucleic acid (C) STRANDEDNESS: single TOPOLOGY: linear (D) (ii) MOLECULAR TYPE: RNA

FEATURE:

(D)

OTHER INFORMATION:

SEQUENCE DESCRIPTION: SEQ ID NO: 88:

14

(ix)

(xi) CGGATGTATA AGCA